Name:

1. [3 pts] Compute $\int \frac{8 \sin (3 x)}{\cos ^{6}(3 x)} d x$

Answer: $\qquad$
2. [3 pts] Compute $\int \frac{6 x}{\sqrt{x+1}} d x$.
3. [4 pts] An alien plant grows at the rate $H^{\prime}(t)=\frac{1}{\sqrt[3]{8 t+3}}$ inches per day, $t$ days after it was planted. How many inches will the height of the plant change on the third day? (Round your answer to three decimal places.)

